CURRICULUM VITAE

January 2008

NAME: Terrance W. Cundy

TITLE: Manager – Silviculture, Wildlife and Environment

ADDRESS: Potlatch Forest Holdings, Inc
805 Mill Road
PO Box 1388
Lewiston, ID 83501

EDUCATION

Ph.D. 1983 Watershed Science, Utah State University

M.S. 1980 Forest Resources with emphasis in Hydrology, University of Minnesota

B.S. 1978 Forest Resources (High Distinction), University of Minnesota

PROFESSIONAL APPOINTMENTS

2007-present Manager - Silviculture, Wildlife and Environment.

Responsibilities include management of technical team (silviculture, wildlife, and forest certification) to support operations and administrative staff in all operating units across the U.S. Ensure on-going compliance with various certification systems (ISO 14001 and FSC), manage the portfolio of research projects in timber and non-timber resources, and participate on various industry and public committees (NCASI and AFPA Committees, Idaho Forest Practices Committee, Idaho DEQ committees).

2005-present Affiliate Professor, College of Natural Resources, University of Idaho.

2004-2007 Manager, Technical Services and Environmental Management System, Potlatch Corporation – Idaho Region.

Responsibilities include management of technical services team (silviculture, wildlife, biometrics and geographic information systems) to support operations and administrative staff. Ensure on-going compliance with various certification systems (ISO 14001, SFI and FSC) as well as participate on various industry and public committees (NCASI and AFPA Committees, Idaho Forest Practices Committee, Idaho DEQ committees).

2001–2004 Manager, Environmental Management System, Potlatch Corporation – Idaho Region.

Responsibilities included development and implementation of an ISO 14001/SFI/FSC compliant environmental management system for the Idaho Region of the Resource Management Division. Served as Potlatch representative on various committees of the National Council of the Paper Industry for Air and Stream Improvement (NACSI) and American Forest and Paper Association (AFPA) as well as several state and local committees associated with state regulatory activities.

1994-2001 Resource Hydrologist, Potlatch Corporation – Idaho Region.

Responsibilities included providing technical assistance to Resource Management Unit Teams, and oversight of the Mica Creek Experimental Watershed Study. Served as Potlatch representative on various NACSI and AFPA committees as well as several state and local committees associated with state regulatory activities. Received Management Performance Award in 1999.

1994-present Affiliate Professor, College of Forest Resources and College of Engineering, University of Washington.

1983-1994 Professor, College of Forest Resources, University of Washington, Graduate Faculty 1985. Affiliate Professor in Civil Engineering 1993.

Conducted research in the areas of watershed chemical and water balances, landslides and debris flows, hillslope hydrology, runoff and erosion from rangelands, timber harvesting impacts on soils, and watershed scale modeling of hydrologic cumulative effects.

1980-1983 Research and Teaching Assistant at Utah State University.

Worked on research relating the spatial variability of point infiltration rates to watershed loss rates. Duties included full responsibility for instructing three Watershed Science courses, and organizing a watershed science seminar.

1976-1980 Research/Teaching Assistant at University of Minnesota.

Work as a Research Assistant was on “Snowmelt Modeling of Upper Missouri River Watersheds With SSARR.” As a Teaching Assistant, assisted in the beginning and advanced Forest Hydrology classes. As an undergraduate, assisted various graduate students in field watershed studies.

PROFESSIONAL ACTIVITIES:

Certified Professional Forester (#3000) by Society of American Foresters since 2003.
Chair, Cumulative Effects of Forest Practices, Water Resources Working Group Session, Society of American Foresters National Convention, September 25-28, 1989.
Chair, Session: Characterization and Modeling of a Hollow in the Cascades With Respect to Slope Stability, 37th Annual Meeting of the Pacific Northwest Section, American Geophysical Union, Sept. 13-14, 1990, Seattle, WA.
Co-chair, Session: Wildland Hydrology - 1990 and Beyond, 1988 National AWRA Conference, November 6-11, 1988, Milwaukee, WI.
Co-chair, Hydrology and Erosion of Timberland Conversions in Western Washington, Workshop of the Washington State Section AWRA and Center for Streamside Studies (UW), November 15-16, 1988, Seattle, WA.
Consultant, U.S. Forest Service, Forest Sciences Lab, Logan, UT; July to October 1980.
Consultant, Los Alamos National Lab, Los Alamos, NM; July 1986-1988.
Consultant, Tacoma - Pierce County Health Dept., Tacoma, WA; 1990-1992.
Consultant, various private organizations.
Instructor, Washington State Department of Natural Resources Watershed Analysis Training, 1992, 1993.
Instructor, Hillslope Hydrology Workshop, Taiwan Forestry Research Institute, 1992.
Member, American Forest and Paper Association Wildlife Committee, since 1995.
Member, American Forest and Paper Association Aquatic Sub-committee, since 1995.
Member, American Geophysical Union since 1981.
Member, American Water Resources Association since 1978; Secretary-Treasurer, Utah State University Section, 1980-82; Chairman-Elect, Wildland Hydrology Working Group, 1987-88; Chairman, Wildland Hydrology Working Group 1989-90.
Member (Associate), American Society of Civil Engineers, since 1996.
Member, Clearwater Basin Advisory Group, since 1995.
Member, Clearwater National Forest Landslide Assessment Team, 1996-97
Member, Governor of Idaho Bull Trout Conservation Team, 1995.
Member, Idaho Forest Practices Act Advisory Committee, since 1995.
Member, IUFRO Hydrology Group 1985-1996.
Member, National Council of the Paper Industry for Air and Stream Improvement - Water Quality Steering Committee since 1994.
Member, National Council of the Paper Industry for Air and Stream Improvement - Cumulative Effects Steering Committee since 1994.
Member, Northwest Forest Soils Council 1984-1994.
Member, Society of American Foresters 1983-1994; Certified Forester #3000.
Member, Water Body Assessment Guidance Technical Review Team, Idaho DEQ, 1996.
Member, Western Snow Conference 1980-1994.
Member, Xi Sigma Pi Professional Fraternity since 1978; Secretary-Fiscal Agent for Delta Chapter 1980.
Member, Timber, Fish, Wildlife (TFW) Erosion and Sedimentation subcommittee, 1987-1988.

Member, TFW Ambient Monitoring subcommittee, 1988.
Participant, U.S. Dept. of Energy Remote Fluvial Experiments program reviews 1986-87.
Presentation (in absentia) – Western Division of American Fisheries Society Annual meeting, Anchorage, AK, 1998.
Reviewer, Forest Science
Reviewer, Journal of Range Management
Reviewer, Water Resources Bulletin
Reviewer, Water Resources Research
Speaker - Soil erosion and sedimentation short course, Cooperative Extension, Washington State University, 1984 and 1986.
Speaker - Silviculture Institute, 1984-93, College of Forest Resources, University of Washington.
Speaker - Olympic National Park NAPAP Research Conference, Olympic National Park.
Speaker - Channel morphology workshop, Center for Streamside Studies, University of Washington, 1988.
Speaker - Hillslope stability workshop, Center for Streamside Studies, University of Washington, 1988.
Speaker - Acid rain workshop, Hydrology and Soils Working Groups, Society of American Foresters Convention, 1988.
Speaker - Hydrology and erosion of timberland conversions in western Washington - workshop, American Water Resources Assoc. (WA Chapter) and Center for Streamside Studies, University of Washington, 1988.
Speaker - GIS and cumulative effects - workshop, National Council of Paper Industry for Air and Stream Improvement, Lewiston, ID, 1992.
Speaker - Stream habitat - application of geomorphic and ecological principles - workshop, Oregon State Univ. 1993.
Speaker - 10th Annual U.S. Landscape Ecology Symposium - A World Dominated by Humans: Theory and Practice, 1995. Minneapolis, MN, 1995.
Speaker - West Coast Regional Meeting, NCASI, Portland, OR, 1995.
Speaker - Upper Columbia Basin Water Resources Workshop, Coeur D'Alene, ID, 1995.
Speaker - Western Forestry and Conservation Association Meeting, Coeur D'Alene, ID, 1995.
Speaker - Idaho Chapter of American Fisheries Society Annual Meeting, Boise, ID, 1995.
Speaker - Twelfth Annual Inland Empire Forest Engineering Conference, Moscow, ID, 1995.
Speaker - Fourteenth Annual Inland Empire Forest Engineering Conference, Moscow, ID, 1997.
Speaker - Dynamics of Northern Idaho Forests, A Symposium of Plants, Animals and People, Coeur D'Alene, ID, 1996.
Speaker - West Coast Regional Meeting, NCASI, Portland, OR, 1996.
Speaker – National Meeting of the American Fisheries Society, Hartford, CT, 1998.
Speaker – National Meeting of the American Fisheries Society, St. Louis, MO, 2000.
Speaker – Forester Forum, Intermountain Forest Association, Coeur d Alene, ID, 2004.
Speaker – Forester Forum, Intermountain Forest Association, Coeur d Alene, ID, 2006.

Speaker – National Academy of Sciences ****
Student – Situational Leadership, Potlatch Corp, 1995.
Student – Personalysis, Potlatch Corp, 2001.
Student – Management Skills for New Managers, American Management Association, 2003.
Symposium Moderator - Streamside Management--Forestry and Fishery Interactions, February 12-14, 1986, University of Washington.
Watershed Analysis - certified in Watershed Analysis by Washington Department of Natural Resources, 1992.

PUBLICATIONS:

Cundy T.W. 1980. Mining and hydrology interactions--a literature review. Project Completion Report to U.S. Forest Service, Forest Sciences Lab, Logan, UT.

Cundy, T.W. 1980. Snowmelt modeling of upper Missouri watersheds with SSARR. Plan B paper. University of Minnesota, St. Paul, MN.

Cundy, T.W., Brooks, K.N. and D.S. Sveum. 1980. Snowmelt modeling of upper Missouri River watersheds with SSARR. Presented at 48th Annual Western Snow Conference, April15-17, 1980. Laramie, WY.

Cundy, T.W. and K.N. Brooks. 1981. Calibrating and verifying the SSARR model--Missouri River watersheds study. Water Resources Bulletin, 17(5):775-782.

Hawkins, R.H. and T.W. Cundy. 1982. Distribution of loss rates implicit in the SCS runoff equation. Presented at American Geophysical Union Hydrology Days, April 21-22, 1982. Colorado State University, Fort Collins, CO.

Cundy, T.W. 1982. An analysis of the effects of spatial variability of point infiltration rates on the comparison of small and large plot rainfall-runoff. Ph.D. Dissertation. Utah State University, Logan, UT.

Grah, O.J., Hawkins, R.H. and T.W. Cundy. 1983. Distribution of infiltration on a small watershed. Presented at ASCE, Irrigation and Drainage Specialty Conference "Advances in Irrigation and Drainage: Surviving External Pressures", Jackson, WY. pp.44-54.

Cundy, T.W. 1984. The use of data logging systems in snow hydrology. Presented at 52nd Annual Western Snow Conference, April 17-19, 1984. Sun Valley, ID.

Cundy, T.W. 1985. A perspective on the fields of forest/range hydrology and its implications for undergraduate and graduate education. Presented at American Institute of Hydrology Workshop/Seminar "Educational and Professional

Development in Hydrology and Hydrogeology: Needs and Opportunities." November 14-15, Las Vegas, NV.

Cundy, T.W. and S.W. Tento. 1985. Solution to the kinematic wave approach to overland flow routing with rainfall excess given by Philip's equation. Water Resources Research, 21(8):1132-1140.

Cundy, T.W. 1986. An overview of erosion processes in the Pacific Northwest. Presented at 5th Biennial Soil Erosion and Sedimentation Short Course, November 5-6, 1986. Olympia, WA.

Edmonds, R.L., T. Cundy, J.J. Rhodes and T.B. Thomas. 1986. Precipitation, throughfall and stream chemistry in a pristine watershed on the Olympic National Park, Washington. 71st Ecol. Soc. Amer. Meeting, Syracuse, New York, Aug. 10-16 (Abstract).

Cundy, T.W. and R.H. Hawkins. 1987. Effects of spatial variability on small plot and hillslope infiltration. In: Proceedings of the International Conference on Infiltration Development and Application (Y. Fok, ed.), January 1987, University of Hawaii at Manoa, Honolulu, HA.

Dunne, T., W. Zhang, and T.W. Cundy. 1987. Systematic variations in infiltration on semi-arid hillslopes. Abstract presented at IGU-IAHS Workshop on Erosion, Transport and Deposition Processes. Jerusalem, Israel. March 29-April 4, 1987.

Hawkins, R.H. and T.W. Cundy. 1987. Steady-state analysis of infiltration and overland flow for spatially-varied hillslopes. Water Resources Bulletin 23(2):251-256.

Salo, E.O. and T.W. Cundy (eds.). 1987. Proceedings of the Symposium on Streamside Management: Forestry and Fishery Interactions, held at the University of Washington, Feb. 12-14, 1986. Contribution No. 57, Institute of Forest Resources, University of Washington.

Springer, E.P. and T.W. Cundy. 1987. Field-scale evaluation of infiltration parameters from soil texture for hydrologic analysis. Water Resources Research, 23(2):325-334.

Thomas, T.B., R.L. Edmonds, J.J. Rhodes, and T.W. Cundy. 1987. Precipitation, interception, and stream chemistry of West Twin Creek watershed, Olympic National Park. Presented at the 60th Annual Meeting of the Northwest Scientific Association, March 26-28, Pacific Lutheran University, Tacoma, WA.

Zhang, W. and T.W. Cundy. Test of a surface runoff and soil erosion model for forest road surfaces. IN: Proceedings of the International Symposium on Erosion and Sedimentation in the Pacific Rim. August 3-7 1987. Corvallis, OR.

Zhang, W. and T.W. Cundy. 1987. A modified Einstein bed load transport equation for laminar overland sheet flow. ASCE J. Hydraulic Eng., 13(12):1525-1538.

Cundy, T.W., 1987. Contrasting hydrologic processes on semiarid and humid watersheds, summary of the presentation and discussion at the Second REFLEX Investigators' Meeting. Sept. 15-16, 1987, Lewes, DE, U.S. Dept. of Energy, Pub. DOE/ER - 0354.

Parks, D.S. and T.W. Cundy. Soil hydraulic characteristics of a small southwest Oregon watershed following high intensity wildfire. IN: Proceedings of the Symposium on Fire and Watershed Management October 26-28, 1988, Sacramento, CA, USDA Forest Service, General Tech. Rep. PSW-109, pp. 63-67.

Springer, E.P. and T.W. Cundy. The effects of spatially-varying soil properties on soil erosion. IN: Proceedings of the ASAE International Symposium on Modeling Agricultural, Forest and Rangeland Hydrology, December 12-13, 1988, Chicago, IL.

Cundy, T.W. and R.H. Hawkins. 1989. A continuous distributed model of storage dominated watershed runoff. ASCE J. Irrig. Drain. Eng. 115(2):305-311.

Cundy, T.W., D.S. Parks, and W. Zhang. 1989. Field evaluation of the runoff response of a forested plot. Hydrological Science and Technology: Short Papers, American Institute of Hydrology, 3(1-2):11-14.

Zhang, W. and T.W. Cundy. 1989. Modeling of two-dimensional overland flow. Water Resour. Res. 25(9):2019-2036.

Springer, E.P. and T.W. Cundy. Predicting overland flow response: effects of spatially-varying soil properties. IN: Watershed Planning and Analysis in Action, Symposium Proceedings of IR Conference, ASCE, Durango, CO. July 9-11, 1990.

Benda, L. E. and T.W. Cundy. 1990. Predicting deposition of debris flows in mountain channels. Canadian Geotechnical Journal, 27:409-417.

Sugden, B.D. and T.W. Cundy. 1990. Characterization of soils in a forested hillslope hollow in the Cascade mountains Washington state. IN: EOS, Trans. Am. Geophys. Union, 1(41) and presented at the 37th Annual Pacific Northwest American Geophysical Union Meeting, Sept. 13-14, 1990, Seattle, WA.

Cundy, T.W. and J.L. Fridley. 1991. Bridging the gap - forest engineers play important role in maintaining and enhancing water quality, Agricultural Engineering 72(3): 21.

Lettenmaier, D.P., R.D. Harr, and T.W. Cundy. 1991. Effect of forest practices on downstream flooding in the northwestern U.S. IN: Proceedings of the International Hydrology and Water Resources Symposium, National Conference Publication No. 91/22. Perth Australia, pp. 365-368.

Jackson, C.R., B.D. Sugden, and T.W. Cundy. Comparison of piezometric response measured in a shallow-soiled hillslope hollow with response predicted using a 3-D finite element model. EOS, Trans. Am. Geophys. Union, 22(44):167 of Supplement, 1991.

Sugden, B.D., C.R. Jackson, and T.W. Cundy. Factors affecting subsurface hydrologic response in steep hillslope hollows, Cascade mountains, Washington. EOS, Trans. Am. Geophys. Union, 22(44):186 of Supplement, 1991.

Harr, R.D. and T.W. Cundy. November 1990 floods of western Washington State, U.S.A. IN Proceedings of the Inter-praevent 1992 Symposium on Protection of Habitat Against Floods, Debris Flows and Avalanches, Bern, Switzerland, June 29-July 3, 1992.

Jackson, C.R. and T.W. Cundy. A model of transient, topographically - driven, saturated subsurface hillslope flow. Water Resources Research, 28(5):1417-1427, 1992.

Luce, C.H. and T.W. Cundy. Modification of the kinematic wave-Philip infiltration overland flow model. Water Resources Research, 28(4):1179-1186, 1992.

Miller, S.M., Cundy, T.W., Murphy, D.L. and P.D. Richards. Using digital terrain data and conditional probability to evaluate landslide hazard. In: Proceedings of the 32nd Annual Conference of the International Erosion Control Association. February, 2001.

Purser, M.D. and T.W. Cundy. Changes in soil physical properties due to cable yarding and their hydrologic implications. Western Journal of Applied Forestry, 7(2):36-39, 1992.

Connelly, B.A. and T.W. Cundy. Cumulative effects of forest management on peak streamflows during rain-on-snow events. IN: Proceedings of the Annual Meeting of the American Institute of Hydrology, Portland, OR, October 17-22, 1992.

Luce, C.H. and T.W. Cundy. Parameter identification for a runoff model for forest roads. Water Resources Research, 30(4):1057-1069, 1994.

McGreer, D.J., Cundy, T.W. and J.A. Gravelle. Mica Creek Cumulative Effects Study. IN: Watershed Management, Planning for the 21st Century, pp. 300-309. ASCE Water Resources Engineering Division. San Antonio, TX, 1995.

Schult, D.T., and T.W. Cundy. Stream structures for fish habitat restoration in Potlatch creek, Idaho. IN: Watershed Restoration Management, Physical, Chemical and Biological Considerations, pp. 57-66. American Water Resources Association. Syracuse, NY, 1996.

Ice, G., Loehle, C., Beebe, J. and T. Cundy. Calibrating and Validating Hydrologic Model Performance for a Forested Watershed in a Snow Regime: The Dueling Model Mica Creek Watershed Study. Second Federal Interagency Hydrologic Modeling Conference, Las Vegas, NV July 29-August 1, 2002.

Ice, G., Dent, L., Robben, J., Cafferata, P., Light, J., Sugden, B., and T. Cundy. Programs assessing implementation and effectiveness of state forest practice rules and BMPs in the west. Water, Air and Soil Pollution: Focus, 4: 143-169. Kluwer Academic Publishers. Netherlands. 2004.

Brooks, E.S., Boll, J., Hubbart, J.A., Link, T., and T. W. Cundy. Long-Term Continuous GIS-Based Modeling of Forest Land Use Changes in Mica Creek Watershed in Northern Idaho. 2005 ASAE Annual International Meeting, Tampa, Florida. July 17-20, 2005.

Chen, C.W., Herr, J., Goldstein, R.A., Ice, G. and T. Cundy. Retrospective Comparison of Watershed Analysis Risk Management Framework and Hydrologic Simulation Program Fortran Applications to Mica Creek Watershed. Journal of Environmental Engineering, ASCE, September 2005:1277-1284.

RESEARCH GRANTS (and other support):

1983-84	University of Washington. Graduate School. $9550 for field and lab equipment.
1983-84	University of Washington. Graduate School. $4940 for comparison of meteorologic variables in the open and under forest cover.
1984-85	USDA McIntire-Stennis. $10,320 to evaluate the effects of clearcut logging and high-lead yarding on soil water properties.
1984-85	US Park Service. Part of $90,340 to monitor precipitation and streamflow quantity and quality with a particular interest in acidity (with C.C. Grier and K.A. Vogt).
1984-85	US Forest Service. $22,430 to model debris flow runout in the Oregon Coast Range (with T. Dunne, Geological Sciences).
1985-86	US Park Service. $78,300 to continue and expand monitoring of

precipitation and streamflow quantity and quality (with C.C. Grier).

1985-86 USDA McIntire-Stennis. $10,320 to continue evaluating the effects of clearcut logging and high-lead yarding on soil water properties.

1985-88 US Geological Survey. $49,788 to evaluate effects of vegetation and microtopography on infiltration and runoff (with T. Dunne, Geological Sciences).

1986-87 US Park Service. $83,000 to continue monitoring of precipitation and streamflow quantity and quality (with R.L. Edmonds).

1987-88 US Park Service. $84,000 to continue monitoring of precipitation and streamflow quantity and quality (with R.L. Edmonds).

1987-88 US Forest Service. $45,000 to develop a model for sediment delivery to channels by landslides and debris flows (with P. Schiess).

1988 USDA McIntire-Stennis. $30,000 to develop and test time series approach to cumulative effects assessment (with K.J. Raedeke).

1988 US Geological Survey. $3,500 to evaluate hydrophobic soils in the Angel burn in southwestern Oregon.

1988-89 US Forest Service. $39,000 to evaluate the effect of forest cover and elevation on rain-on-snow and the delivery of water to the soil surface.

1988-89 US Park Service. $89,000 to continue monitoring of precipitation and streamflow quantity and quality (with R.L. Edmonds).

1989-92 National Science Foundation. $265,000 to conduct modeling and field studies of the hydrology of hillslope hollows (with T. Dunne, W. Chu, L. Fritschen).

1989-90 San Diego Supercomputer Center. Twenty service units to support hydrologic modeling of hillslope hollows with T. Dunne, W. Chu and L. Fritschen).

1989-90 US Forest Service. $22,500 to continue rain-on-snow research.

1989-90 US Forest Service. $9,468 to evaluate the effects of forest management related landslides on stream channels in Canyon Creek basin.

1989-90 US Forest Service. $16,800 to study sediment transport processes in high gradient headwater streams in forested watersheds.

1990	US Forest Service. $10,300 to develop an overland flow model for forest road surfaces.
1990-91	US Park Service. $89,500 to continue monitoring of precipitation and streamflow quantity and quality (with R.L. Edmonds).
1990-91	US Forest Service. $11,500 to continue rain-on-snow research.
1990-91	US Forest Service. $21,000 to continue sediment transport research.
1991-92	US Forest Service. $15,000 to develop a model for assessing cumulative watershed effects from forest harvesting.
1991-92	US Forest Service. $33,000 to study hyporheic zones in western Washington streams.
1991-92	US Park Service. $68,625 to continue monitoring of precipitation and streamflow quantity and quality (with R.L. Edmonds).
1991-92	Weyerhaeuser Co., Washington Forest Protection Association, and King County Surface Water Manage-ment. $90,190 to develop a model for assessing cumulative watershed effects from forest harvesting (with D.P. Lettenmaier and R.D. Harr).
1992-93	US Forest Service. $2900 to continue rain-on-snow research.
1992-93	US Forest Service. $20,000 to continue sediment transport research.
1992-93	US Forest Service. $19,995 to continue hyporheic zone study.
1992-93	US Forest Service. $24,000 to conduct a watershed condition survey including landslide and channel analysis in the North Fork Calawah River.
1992-93	US Park Service. $66,000 to continue monitoring of precipitation and streamflow quantity and quality (with R.L. Edmonds).
1992-93	US Park Service. $9,000 to continue monitoring of precipitation and streamflow quantity and quality (with R.L. Edmonds).
1993-97	US Forest Service. $130,000 to evaluate hydrologic response from various harvesting levels (with S.M. Bolton).
1993-95	US Forest Service. $55,000 to incorporate land-sliding into 3-D visualization, landscape analysis computer program (with J.L. Fridley and S.M. Bolton).